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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
34157-707.831

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on March 22, 2010

Signature /Linda Anders/

Typed or printed name Linda Anders

Application Number	Filed
10/530,164	April 4, 2005

First Named Inventor
Susanne Binder

Art Unit	Examiner
1651	Kim, Taeyoon

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96)

☒ attorney of agent of record.
Registration number 47,684

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

/Michael J. Hostetler/
Signature

Michael J. Hostetler
Typed or printed name

(858) 350-2306
Telephone Number

March 22, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of 1 forms are submitted.

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8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Inventors: Susanne Binder, *et al.* Serial No.: 10/530,164 Filed: April 04, 2005 Title: Retinal Pigment Epithelial Cell Cultures on Amniotic Membrane and Transplantation	Group Art Unit: 1651 Examiner: Kim, Taeyoon Confirmation No. 5602 **Certificate of Electronic Filing** I hereby certify that this Pre-Appeal Brief Request for Review and all marked attachments are being deposited by Electronic Filing on March 22, 2010 by using the EFS-Web patent filing system and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. By: Linda Anders Linda Anders

PRE-APPEAL BRIEF REQUEST FOR REVIEW

I. The Office's Rejection of the Applicant's Affidavits Is Clearly Erroneous

The Office first cited Young et al. in the Office Action of March 3, 2008. Young et al. was filed in August 2002 and claimed priority back to August 2001. In Applicants' response to the Office Action (submitted July 8, 2008), both Applicants provided affidavits showing that they conceived of the present claims before Young et al. and diligently worked to reduce the conception to practice. However, in the Office Action of October 28, 2008, the Office stated that "the evidence submitted is insufficient to establish conception of the invention prior to the effective date of the Young et al. reference." The Office's holding with regards to the date of conception of the present claims is clearly erroneous.

In his affidavit of June 10, 2008, Dr. Scheffer Tseng stated "before August 2001, Dr. Susanne Binder and I conceived of the idea of treating a retinal disease by inserting a composite comprising amniotic membrane and confluent retinal pigment epithelial (RPE) or RPE equivalent cells on the membrane, in the subretinal space of a patient…Dr. Binder and I discussed ways to develop culturing and characterization techniques using animal tissue, ways to develop an animal model of RPE atrophy or degeneration similar

to [ARMD], and surgical techniques to transplant amniotic membrane and RPE cells to the subretinal space." (See also, Affidavit of July 8, 2008 of Dr. Susanne Binder).

In the Office Action of October 28, 2008, the Office stated that "while conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another." The Office seems to be interpreting this statement as a requirement for proof of the timing of conception. However, this statement simply relates to the ability of the Applicant to describe the invention (either physically or in words), in other words – to prove the concept is more than "a vague idea of how to solve a problem." *See,* MPEP 715. Applicants' invention satisfies this requirement. The invention is more than a vague idea of how to solve the problem of retinal disease. The invention is a specific, concrete idea - inserting a composite comprising amniotic membrane and confluent retinal pigment epithelial (RPE) or RPE equivalent cells on the membrane, in the subretinal space of a patient. Applicants' conception included "the requisite means themselves and their interaction." *See,* MPEP 715. In sum, the Office is clearly erroneous in its interpretation of the requirements of MPEP 7145.

The Office also stated that the affidavits of Drs. Tseng and Binder "[do] not have any supporting proof or evidence to confirm the conception prior to August 2001." However, the MPEP does not state that an affidavit unaccompanied by "supporting proof or evidence" is ineffective. MPEP 715 states that "original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained." Applicants have explained the lack of "original exhibits of drawings or records, or photocopies thereof" – conception occurred in oral discussions. Thus, the Office is clearly erroneous in its interpretation of the requirements of MPEP 7145.

II. The Office's Position That Young Inherently Teach An RPE Cell Density of 16,000 to 20,000 per 4 mm^2 Is Clearly Erroneous

In the Office Action of December 22, 2009, the Examiner concedes that Young does not "particularly teach the concentration of RPE cells being 16,000 – 20,000 per 4 mm^2 of amniotic membrane." *See*, Office Action of 12/22/2009, page 5. However, the

Office asserts that "although Young et al. do not particularly teach the concentration of RPE cells being 16,000 – 20,000 per 4 mm^2 of amniotic membrane, this limitation is inherently met by the monolayer of RPE cells grown in culture as taught by Young et al. is considered to encompass the similar number of cells per 4 mm^2 of amniotic membrane. This is because it is known that the RPE density of human eyes is about 2,000 RPE cells/mm^2 up to about 14,000 RPE cells/mm^2, which can be re-calculated as about 8,000 RPE cells/4mm^2 up to about 56,000 RPE cells/4mm^2, according to Robb {}. Therefore, it is considered that the monolayer of RPE cells of Young et al. would have the comparable amount of RPE cells per unit area and thus, meet the limitation." *See*, Office Action of 12/22/2009, pages 5-6. However, Applicants assert that the Office is incorrect and that Young does not inherently meet this limitation.

First, the Office relies on Robb for disclosure of the density of RPE cells. Applicants' draw the Office's attention to the fact that Robb only gives the density of RPE cells in a human eye. The Office has offered no proof that the density of RPE cells in a human eye is equivalent to the density found on the grafts taught in Young et al. The conditions found in the human eye likely vary from the artificial conditions used to produce Young et al.'s graft (*See* Section III). As such, the Office cannot argue that RPE density is the same. Without such proof, it is clearly erroneous for the Office to rely on Robb for proof that "the monolayer of RPE cells of Young et al. would have the comparable amount of RPE cells per unit area and thus, meet the limitation."

Second, Young et al. does not describe, teach or suggest the density of any of the RPE layers (or monolayers). Young et al. does not even describe, teach or suggest that the layer of RPE cells should be confluent across the entire composite. It is only with confluence across the entire composite that the RPE cell density would approach 16,000 – 20,000 per 4 mm^2 of composite. The RPE layer described in Young et al. could comprise any number of cells. It is just as likely as not that the grafts of Young et al. had a lower density than the composite currently claimed, especially as Young et al. did not even identify the RPE density as a goal to approach. Further, if Young et al. did not realize that RPE density is important, it is highly likely that they would assume a lower density would suffice. Without an explicit disclosure regarding density or confluence, it

is erroneous for the Office to assume that the RPE layer disclosed in Young et al. inherently has the required cell density. In sum, the Office is clearly erroneous in concluding that Young et al. inherently teaches an RPE cell density of 16,000 to 20,000 per 4 mm^2 of composite.

III. The Office's Position That Young Is A Suitable Section 103 Reference Is Clearly Erroneous

Per MPEP 2145, "a conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention." Young et al. does not enable one of skill in the art to manufacture "a composite comprising amniotic membrane and non-immortalized human retinal epithelial cells or non-immortalized human retinal epithelial equivalent cells on the membrane." Young et al. does not describe any of the methods or conditions necessary to manufacture "a composite comprising amniotic membrane and non-immortalized human retinal epithelial cells or non-immortalized human retinal epithelial equivalent cells on the membrane." Young et al. does not describe how to harvest RPE cells. Young et al. does not describe the culture media to be used when culturing RPE cells. Young et al. does not describe the growth periods required for culturing RPE cells. Young et al. does not describe how to prepare amniotic membrane. Young et al. does not describe how to passage RPE cells such that a confluent monolayer is obtained. Without any of these disclosures, it would require large amounts of experimentation to manufacture Applicants' composite. Thus, the Office is clearly erroneous in concluding that Young et al. is enabling and can be used as a section 103 reference.

CONCLUSION

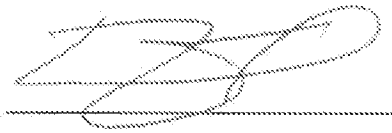
Applicant believes that this request fully complies with the submission requirements promulgated by the Patent and Trademark Office for a request for pre-appeal brief review. Applicant submits that the Office's rejections were based upon the legal and factual errors noted, and that correction of these errors will place the Application in a condition for allowance. Applicant respectfully requests a review of the matters identified in this paper.

Should any questions arise, any reviewing panel member is encouraged to contact the undersigned attorney at (858) 350-2306. The Commissioner is authorized to charge any additional fees that may be required, including petition fees and extension of time fees, or credit any overpayment to Deposit Account No. 23-2415 (Docket No. 34157-707.831).

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI
A Professional Corporation

Date: March 22, 2010

By: 

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